HABITAT CONSERVATION PLAN
Technical Advisory Committee
May 2, 2006. 8:00am – Noon
Tohono O'odham Nation Hikdañ Riparian Restoration Project Site
and U.S. Fish and Wildlife Service office
201 N. Bonita
Tucson, Arizona 85745

MEETING SUMMARY

Attendees: Guy McPherson, Trevor Hare, Ann Phillips, Rich Glinski, Linwood Smith, Dennis Abbate, Lori Anderson (Coalition for Sonoran Desert Protection), Ralph Marra (Tucson Water Department), Jennifer Becker (Pima County Flood Control District), Mark Briggs (Restoration Ecologist for Hikdañ restoration project), Marsha Davis (San Xavier District, Hikdañ restoration project manager), Terry Encinas (San Xavier District, Hikdañ restoration project site manager), Michael Wyneken (City of Tucson – Urban Planning & Design), Leslie Liberti (City of Tucson – City Manager's Office), Jessica Lee and Geoff Soroka (SWCA)

1) Update on Recent SAC Meetings/Upcoming Meetings

a. *Recent/Scheduled SAC Meetings:*
- April 19, 3-5 pm, @ AGFD.

b. Scheduled TAC Meetings:
- May 16, 7am-11am Fieldtrip. Meet at USFWS.
- First and Third Tuesdays, 9:00 – 11:00 AM @ AGFD.

2) Old Business

a. Meeting Minutes – March 21, April 4 and 18, 2006

The TAC postponed the discussion of these meeting minutes until a later date due to the fieldtrip.

3) New Business

a. *Fieldtrip to Tohono O'odham Nation Hikdañ Riparian Restoration Project Site*

The TAC met Mark Briggs, a restoration ecologist who has been working with the San Xavier District since 1996, at the restoration project site. Mark provided the TAC members with a handout detailing the background and basic facts of the Hikdañ riparian restoration site. Marsha Davis (Hikdañ project manager) and Terry Encinas (Hikdañ site manager) also were present to help Mark guide the tour and to answer questions.

The Hikdañ project contains two sites along the Santa Cruz River within the Tohono O'odham Nation, approximately two miles apart. Mark explained that originally four sites

were evaluated, but two were selected based on several criteria, including: access to the community, soil quality, lower flood hazard, perched water table, and the existence of two mature, healthy cottonwood trees. The TAC visited Site 1 first. Site 1 is 10 acres in size and is located on the west side of the Santa Cruz River, just south of Martinez Hill. Mark explained that this site is higher maintenance and constructed with a greater level of technology than Site 2. He said that Site 1 cost approximately $500,000-600,000, and was funded through a variety of grants. Mark noted that Terry has done a great job keeping up the maintenance of the site, which includes weeding, fixing irrigation lines, etc. on a weekly basis. Mark said that finding available water for the project was simple because the Nation supports river restoration work, and so they provided water from their Central Arizona Project (CAP) allocation. He added that restoring the Santa Cruz River is part of the overall community mission statement for the District. He explained that Site 1 was scoured by flooding in both 1983 and 1993, and that the natural perched water table at the site is approximately 25 feet below the surface. He pointed to a berm that was created to protect the restoration site from a 10-year flood event, and explained that the funding to construct it came from the Bureau of Reclamation. He showed photos of the site before the restoration project to the group, noting how bare the site was. He mentioned that the only plants that were removed were a few salt cedars. He stressed that the goal for the restoration project is to create riparian vegetation that will be able to survive off the perched water table without continual supplemental irrigation. He said that over time, the space for the wetlands would decrease to make way for thicker mesquite bosque.

Mark passed around a large binder, that he helped create as an educational tool, that was filled with pressed plants and pictures of many of the native plants present on site. He provided a general tour of the site, noting the two ponds, overflow channel, and various planted trees and shrubs. He noted that the Nation elders wanted to hear the sound of running water, so they adapted the plans so that water is discharged out of a pipe onto rocks before flowing into the ponds, creating a nice sound effect. He said that the intent is for water in the wetland ponds to percolate down and raise the level of the perched water table. He said that the Nation agreed to abide by USFWS requirements that the CAP water is not discharged into the Santa Cruz River. So, the overflow channels eventually drain into another pond area with an earthen dam and percolate into the ground. The current estimated monthly water use at the height of dry season is approximately 4.61 acre-feet. He noted that no seeding was done, just planting of juvenile plants. He said that invasive plants are only controlled around the base of the planted natives, and that they are either pulled by hand, sprayed with a concentrated vinegar solution, or periodically sprayed with Roundup. Native species were planted using an auger to punch a whole through the impervious clay layer. The plants are irrigated everyday through drip irrigation during the dry season, and are soaked once a week to encourage root growth down towards the perched water table. The plants were purchased from local nurseries, but some were grown from clippings and seeds collected near the site. The cottonwoods and willows were brought in from the Simpson Farm restoration site.

Mark noted that monitoring is critical for restoration success because it forces people to closely observe the plants, soils, irrigation line, and other changes that have occurred on the site. He noted that bullfrogs were just observed in the wetland ponds a few weeks ago and that a plan for removing them was being developed. He mentioned that BTI is used in the wetlands areas to control mosquitoes, and that eventually they would like to

introduce native fish into the ponds. He explained that the bottom layer of the wetland areas was created by pounding four inches of “dried pond scum” to create a natural, semi-pervious layer.

Terry explained the cultural and spiritual significance of four decorated ceremonial poles on the site, each signifying a year of the project. He stressed that the Hikdañ restoration site is important because it is creating a space for the Tribe to reconnect and to help in healing the land. He noted that the two large cottonwood trees on site are considered Grandfather trees.

Site 2 had just been planted and is about four acres in size. Mark explained that Site 2 is a less-costly, lower-tech approach. Plants were grown at the Wildland Nursery, and some of the seeds were collected on or near the site. He said that due to the three-tiered terraces, it is less likely that this site would get flooded. He said that the goal is to have approximately 90 percent of the site evolve into mesquite bosque, and that one existing cottonwood tree was present. A smaller perched aquifer is present at a depth of approximately 40 feet below the ground surface. Arizona walnut trees were also planted. He noted that the intent is to turn the irrigation water off completely at some point. For the riparian plants, holes were augured to break through the clay layer and additional basins were dug and filled with gravel to help facilitate the vertical percolation of water in aiding the roots to grow deeper. He stressed that Site 2 is a good example of how to do low-cost restoration. Marc noted that both sites have a piezometer. He said that a 20-year flood could potentially erode this site.

Marc noted that the Tribe has plans to wait and see how these two restoration sites do in the next few years before they begin any future projects.

b. Discuss tour and City of Tucson Environmental Resource Report (ERR) Update

At the USFWS office, the TAC discussed the Hikdañ riparian restoration site. Overall, the group was impressed. Ann noted that much effort has to be put into maintenance of the site, and as with any restoration project, it needs to be decided how much “mess” is tolerable, because upkeep is time consuming and costly. She noted that fewer invasives would grow when irrigation is not present, so once the native plants become established, it is best to let them survive on rainfall alone. She explained that at the Simpson Farm site, once a saltbush canopy was established, little Russian thistle could survive. Ralph noted that it is important to estimate the overhead and maintenance (O & M) costs from the beginning, including controlling invasives and vectors (mosquitoes). He noted that at the Sweetwater Wetlands, mosquito control costs approximately $50,000 a year.

Leslie passed out a table that compares the City of Tucson Environmental Resource Report (ERR) with the Pima County Biological Impact Report (BIR). Leslie posed several questions to the TAC with regards to updating the ERR. She explained that when the City considers rezoning properties with significant biological features and resources, they require the developers to submit an ERR. The applicant/developer is required in the ERR to explain how the proposed project is going to impact the significant biological resources on the site. She said that the wording in the ERR related to “significant biological resources” is poorly defined and general. The City wants to revise the ERR, and she asked the TAC to provide feedback on what types of questions the City should ask the developers in the report. She said that there were a few caveats to this request,

including, only asking developers to provide simple details in making sure that the ERR is easily understood by non-biologists, and not compiling a document that is too lengthy for City staff to have time to read. She explained that the goal of the ERR is to inquire about information that would have policy implications; for example, requiring information in the ERR to be tied to current environmental regulations. The goal is for the City to make recommendations to help developers to design and implement projects in as much an environmentally sensitive manner as possible. She reviewed the current components of the ERR, including vegetation, hydrological data, washes, soils, habitat, archaeology, topography, grading, and other criterion. The City wants to strengthen the ERR to make it a more practical tool for developers and City staff when working through a rezoning process.

Rich asked Leslie to explain the City review process. He expressed concern that the City might not be evaluating these projects with the larger picture in mind. Leslie explained that she and a few others review rezonings, but that she is the only trained ecologist. She said that the goal is to revise the ERR with development guidance and manuals so that the applicants know what is required of them through the rezoning process. Michael noted that, in the past, the ERR was used to identify red flags related to the project so that specific issues with the rezoning could be altered. Leslie stressed that the ERR is not a regulatory document, but rather an educational tool for City staff so that they can be more familiar with the site. The ERR also gives the developers a “head’s up” from the beginning about what the City might require through the site design. From the City’s perspective, it is better to meet with the developer at the beginning of the project in order to establish a working relationship. Then it is easier to incorporate environmentally friendly aspects into the site design without having to have regulations in place. Trevor suggested that the Sonoran Desert Conservation Plan models could be helpful in evaluating the biological merit of the project site. Ann suggested increasing the required detail about vegetation on the site, including submitting several photos and indicating where they were taken on an aerial photograph. Trevor suggested that gathering information on Pima pineapple cactus (PPC) is important to include. Leslie responded that the developers have to do PPC surveys anyways as part of the Native Plant Preservation Ordinance (NPPO), because it is on the list of species. She said that in the County BIR, they ask the applicant if PPC surveys have been done and what the results were. Ann suggested including a broad aerial photograph in the requirements so that City staff can have a better idea about where the project area lies in relation to the surrounding area. Leslie said that she would email the ERR handout to the TAC for review in the next few weeks. She asked the TAC to send out any additional suggestions by email.

Leslie noted that the City HCP website is going to be redone and online in July. She then mentioned that at the last SAC meeting, they had discussed public outreach and education. However, the group had some reservations about going to the general public at this time, due to the level of understanding and some of the unknown details regarding the HCP. The SAC decided that, for the next several months, the best approach would be to provide HCP presentations to specific stakeholder groups, and to begin outreach efforts through articles in stakeholder newsletters. Trevor said that he would support an effort to go out to the general public now. Leslie noted that with the new website, an electronic public comment form would be available. Ralph suggested that, in developing the public comment form, it would be helpful to create a set of structured questions that would provide meaningful feedback. Michael said that he

anticipates concern regarding some of the sections of the HCP being under-developed. Leslie said that the SAC agreed to take a break from meeting monthly until the Resource Planning Advisory Committee (RPAC) is created. However, the SAC would still be receiving updates by email twice a month on the status of the TAC, along with updates regarding general regional planning.

Ann passed out the revised draft of the "Proposal for Restoration Trials on City of Tucson Avra Valley Land", submitted by Tucson Audubon Society, member of the City HCP.

4) Call to the Public

No members of the public were present.

5) Next Steps/ Future Meetings

The next TAC meeting is scheduled for May 16, 2006. The meeting is scheduled for a half-day field trip/working session at various points along the Santa Cruz River. The TAC is scheduled to meet at the USFWS office at 7am.

Ann passed out copies of the draft April 17, 2006 El Rio U.S. Army Corps of Engineers (USACE) brainstorm session. She noted that a subgroup at the meeting got together and developed a set of guidelines that should be included in all of the USACE restoration alternatives. Ann stressed that, by going with the USACE set of criteria, it is logical that their preferred alternative is the highly expensive, manicured "Disneyland model." Leslie stressed that, like the Paseo de las Iglesias project, the community could suggest a locally supported alternative to USACE.